



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>C12N 5/00, 15/63, 15/79, 15/00, A61K 48/00</b>		(11) International Publication Number: <b>WO 96/17053</b>
<b>A1</b>		(43) International Publication Date: 6 June 1996 (06.06.96)
(21) International Application Number: PCT/US95/15455		(74) Agents: GOLDSTEIN, Jorge, A. et al.; Sterne, Kessler, Goldstein & Fox P.L.L.C., Suite 600, 1100 New York Avenue, N.W., Washington, DC 20005-3934 (US).
(22) International Filing Date: 28 November 1995 (28.11.95)		
(30) Priority Data: 08/348,258 28 November 1994 (28.11.94) US 08/487,992 7 June 1995 (07.06.95) US		
(60) Parent Application or Grant (63) Related by Continuation US 08/487,992 (CIP) Filed on 7 June 1995 (07.06.95)		
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		<b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

(54) Title: VECTORS FOR TISSUE-SPECIFIC REPLICATION

## (57) Abstract

The invention generally relates to targeted gene therapy using recombinant vectors and particularly adenovirus vectors. The invention specifically relates to replication-conditional vectors and methods for using them. Such vectors are able to selectively replicate in a target tissue to provide a therapeutic benefit from the presence of the vector *per se* or from heterologous gene products expressed from the vector and distributed throughout the tissue. In such vectors, a gene essential for replication is placed under the control of a heterologous tissue-specific transcriptional regulatory sequence. Thus, replication is conditioned on the presence of a factor(s) that induces transcription or the absence of a factor(s) that inhibits transcription of the gene by means of the transcriptional regulatory sequence with this vector; therefore, a target tissue can be selectively treated.